

Response  
Application No. 10/702,430  
Attorney Docket No. 032086

**AMENDMENTS TO THE CLAIMS**

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A detector calibration method, wherein comprising:  
calibrating the power and output signals of each photodetector device of a detector with  
photodetector device arrays arranged in one dimension or two dimensions using a power meter  
with traceability to the national standard of optical power, is used to calibrate the power of each  
photodetector device of a detector with photodetector device arrays arranged in one dimension or  
two dimensions and

wherein also to calibrate the output signals of the detector, so that it is possible to  
measure the spatial distribution of a light source's power and values of optical power can be  
measured with traceability to the national standard directly from the output signals of the detector  
pixels.

2. (Currently Amended): The detector calibration method of claim 1, wherein said  
detector is calibrated by measuring calibrating a reference light source with said power meter,  
and then by measuring the detector with the reference light source with the detector, and then  
calibrating the output signal of the detector based on the light power calibrated to the power  
meter.

3. (Original): The detection calibration method of claim 1 or claim 2, wherein said  
detector is a camera with a photodetector part comprising a plurality of pixels.

4. (Currently Amended): A power measurement instrument measuring method,  
comprising the steps of:

calibrating a detector which is equipped with a detector calibrated according to the  
detector calibration method described in claim 1 or claim 2, and which measures

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measuring biochips, cells, fluorescent coating materials, or fluorescent dust.

5. (Currently Amended): A power ~~measurement instrument~~ measuring method, comprising the steps of:

calibrating a detector, which is equipped with a means of calculating the number of molecules in a fluorescent object, ~~from a detector calibrated according to the detector calibration method described in claim 1 or claim 2, and~~

calculating the power or the number of molecules of a fluorescent object using the output signals of the detector which detects fluorescent power from the fluorescent object, and the formula for the power generated from fluorescent dye, and which can directly estimate the power or number of molecules or power and number of molecules of the fluorescent object.